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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,203	09/03/2003	Jouko Kinnunen	02849.0124	2604

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EXAMINER

LE, NHAN T

ART UNIT PAPER NUMBER

2685

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/653,203

Applicant(s)

KINNUNEN ET AL.

Examiner

Nhan T. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/24/05, 10/24/05</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-9, 11-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Lyons et al (US 5,839,096).

As to claims 1, 11, Lyons teaches an RF testing method of an electronic device in conjunction with production of the electronic devices, the method comprising: measuring at least one RF property of the electronic device under test using at least one sensor outputting at least one measurement signal (see fig. 1, number 15, col. 6, lines 28-67, col. 7, lines 1-20), performing comparison between the at least one measurement signal and at least one corresponding reference signal (see fig. 1, number 17, col. 6, lines 28-67, col. 7, lines 1-20), and determining defectiveness of the electronic device (see fig. 1, number 21, col. 6, lines 28-67, col. 7, lines 1-20) based on the comparison.

As to claims 2, 12, Lyons further teaches comprising changing the states of the electronic device sequentially (see col. 15, lines 1-35), and performing comparison between the at least one measurement signal and the at least one corresponding reference signal related to the sequences of the states of the electronic device (see col. 15, lines 1-35).

As to claims 3, 13, Lyons further teaches comprising performing comparison between at least one measurement signal and at least one corresponding reference signal representing an electronic device without defects, the comparison measuring similarity between the compared signals, determining the defectiveness of the electronic device as acceptable, if the similarity is higher than a predetermined threshold (see col. 15, lines 1-35), and determining the defectiveness of the electronic device as unacceptable, if the similarity is the same as the predetermined threshold or lower than the predetermined threshold (see col. 15, lines 1-35).

As to claims 4, 14, Lyons further teaches comprising forming a comparison factor measuring similarity between the compared signals in the comparison, determining the defectiveness of the electronic device as acceptable, if the comparison factor has a higher value than a predetermined threshold value (see col. 16, lines 42-67), and determining the defectiveness of the electronic device as unacceptable, if the comparison factor has the same value as a predetermined value or a lower value than the predetermined threshold value (see col. 16, lines 42-67).

As to claims 5, 15, Lyons further comprising performing comparison between the at least one measurement signal and at least one corresponding reference signal representing an electronic device with at least one defect, the comparison measuring similarity between the compared signals, determining the defectiveness of the electronic device as unacceptable, if the similarity is the same as a predetermined threshold or higher than the predetermined threshold (see col. 17, lines 53-67, col. 18, lines 1-13), and determining the defectiveness of the electronic device as acceptable, if the

similarity is lower than the predetermined threshold (see col. 17, lines 53-67, col. 18, lines 1-13).

As to claims 6, 16, Lyons further teaches comprising forming a comparison factor measuring similarity between the compared signals in the comparison, determining the defectiveness of the electronic device as unacceptable, if the comparison factor has the same value as a predetermined threshold value or a higher value than the predetermined threshold value (see col. 17, lines 53-67, col. 18, lines 1-13), and determining the defectiveness of the electronic device as acceptable, if the comparison factor has a lower value than the predetermined threshold value (see col. 17, lines 53-67, col. 18, lines 1-13).

As to claims 7, 17, Lyons further teaches comprising using a reference signal representing an electronic device with at least one known defect (see col. 17, lines 53-67, col. 18, lines 1-13), and determining the type of defect in the electronic device according to the at least one known defect (see col. 17, lines 53-67, col. 18, lines 1-13).

As to claims 8, 18, Lyons further teaches comprising comparing at least two measurement signals for determining defectiveness of the electronic device (see col. 17, lines 53-67, col. 18, lines 1-13).

As to claims 9, 19, Lyons further teaches comprising at least one measurement of the following: measuring audio, measuring analog signaling or digital signaling (col. 6, lines 28-67, col. 7, lines 1-20), the measurement performed by at least one sensor outputting at least one measurement signal (col. 6, lines 28-67, col. 7, lines 1-20), performing comparison between the at least one measurement signal and at least one

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corresponding reference signal, and determining defectiveness of the electronic device based on the comparison (col. 6, lines 28-67, col. 7, lines 1-20).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 10, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyons et al (US 5,839,096) in view of De Obaldia et al (US 2004/0148121).

As to claims 10, 20, Lyons teaches an RF testing method comprising: measuring at least one RF property of the mobile phone under test using at least one sensor outputting at least one measurement signal (see fig. 1, number 15, col. 6, lines 28-67, col. 7, lines 1-20), performing comparison between the at least one measurement signal and at least one corresponding reference signal (see fig. 1, number 17, col. 6, lines 28-67, col. 7, lines 1-20), and determining defectiveness of the mobile phone based on the comparison (see fig. 1, number 21, col. 6, lines 28-67, col. 7, lines 1-20). Lyons fails to teach wherein the testing method is in conjunction with the mobile phone. De teaches wherein the testing method is in conjunction with the mobile phone (see paragraph 0012). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of De into the system of Lyons in order to accommodate the frequency range to be tested (as suggested by De see paragraph 0012).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Henrikson (US 6,940,263) teaches testing transceiver.

Kanago et al (US 6,587,671) teaches RF test with concurrent measurement architecture.

Chappell et al (US 5,585,842) teaches CATV frequency sweep testing using RF transmitter to generate test signal.

Salmon (US 2004/0176924) teaches apparatus and method for testing electronic system.

Kobayashi et al (US 5,442,811) teaches loop testable radio transmitter/ receiver.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Le whose telephone number is 571-272-7892. The examiner can normally be reached on 08:00-05:00 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*N. Le*

Nhan Le

*Nguyen Vo*  
*1-6-2006*

**NGUYENT.VO**  
**PRIMARY EXAMINER**